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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/976,573	10/12/2001	Jacob Thomas	970236 UIC1P1 USA	2700

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HALLIBURTON ENERGY SERVICES, INC.  
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EXAMINER

MCELHENY JR, DONALD E

ART UNIT	PAPER NUMBER
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2857

DATE MAILED: 11/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/976,573

Applicant(s)

THOMAS ET AL.

Examiner

Donald E. McElheny, Jr.

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07-14-03 & 7-31-03.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8. 6) ☐ Other: \_\_\_\_\_

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5, 7, 9, 11, 12, 22, 23, 25,26, 29-31, 33, 35, and 36 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Rinaldi (4,676,313).

Note that reservoir modeling, reservoir planning and drilling, reservoir production process and updating of the model are taught as a continuously ongoing monitored iterative process to optimize the reservoir field production.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 6, 8, 10, 13-21, 24, 27, 28, 32, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rinaldi.

Claims 6, 20, 24, 27, 28, and 34 call for the reservoir and wells to be in a seabed. While this reference does not explicitly state the desired location of the well production control system, those skilled in the art were well aware that such taught production reservoir operations were routinely performed both not only on land but in the sea as well, and the associated differences in tools necessary to perform such sea operations would not have involved anything beyond the ordinary knowledge and routine reservoir production operations already known in the art. A multitude of such seabed reservoir production operations teachings are also already of record, such as the Tubel et al. patents, among others. This claimed feature is also admitted prior art by applicants' own specification and no novelty is either attributed or disclosed to such feature being in such combination.

Claims 8 and 13-21 require that nodal analysis be included in the modeling reservoir analysis. Such was already well known in the same context of reservoir analysis to those of ordinary skill in the art, as admitted by applicants' specification on pages 15, 16, 25, and 31+ in the table. Applicants' disclosure is lacking in teaching specifics of such feature and is only enabling to claim such feature as already having been within the domain of prior art and not involving novelty. The use of such feature was already well known for modeling reservoir field production and thus would have been considered in any reservoir modeling system and its analysis.

Claims 10, 13, 17-21 require the use of risk economic analysis. Such was already well known in the same context of reservoir analysis to those of ordinary skill in the art, as admitted by applicants' specification on pages 25, 26 and 31+ in the table. Applicants' disclosure is lacking in teaching specifics of such feature and is only enabling to claim such feature as already having been within the domain of prior art and not involving novelty. The use of such feature was already well known for modeling reservoir field production and thus would have been considered in any reservoir modeling system and its analysis. The teaching in Rinaldi to use iterative modeling and optimization of factors affecting production so as to maximize reservoir productivity is in itself a generalized teaching of risk and economic factors being taken into consideration of reservoir modeling, and motivation to consider, include and use such features taught by others.

Claim 32 calls for including collection of seismic data, specifically for 4D use. Such was already well known in the same context of reservoir analysis to those of ordinary skill in the art, as admitted by applicants' specification on pages 14 and 31+ in the table. Applicants' disclosure is lacking in teaching specifics of such feature and is only enabling to claim such feature as already having been within the domain of prior art and not involving novelty. The use of such feature was already well known for modeling reservoir field production and thus would have been considered in any reservoir modeling system and its analysis.

6. Art not applied against the claims is cited as pertinent prior art also teaching the claimed invention features. Weirich et al. (6,176,323) teach modeling a reservoir field

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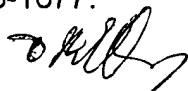
and its wells and specifically including determining new drilling locations for the reservoir and monitoring additional drilling operations and the injection and production of wellbore fluids and gases that are indicative of the reservoir production status. Also taught is the inclusion of seismic survey techniques with the iterative modeling.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald McElheny Jr., whose telephone number is (703) 305-3894.

Fax transmissions may be directed to (703) 308-7724.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

If attempts to reach the Examiner are unsuccessful, the Examiner's supervisor, Marc Hoff, can be reached at (703) 308-1677.



**DONALD E. McELHENY, JR.**  
**PRIMARY EXAMINER**